



# EXTENDED SUPPLY AND USE TABLES AND TIVA INDICATORS



# PUBLICATION OF THE EXTENDED SUPPLY AND USE TABLES



The **Extended Supply and Use Tables** are integrated of the following profiles:

- **Export Focus**
- **Owner Focus**
- **Economic Unit Size**
- **Integrated Focus**

**Integrated Focus** is opened of the Exporter Focus into the owner focus and economic unit size in a single table for both supply and use.

The dissemination of the four extensions at the sector level and by establishment took place on:



November  
14th 2018

# EXTENDED SUPPLY AND USE TABLES



## NATIONAL APPROACH



Terms of Reference (ToR) specify that the methods and extensions proposed are adaptable to the needs of each economy. Therefore, the next conditions showed of the extension are based on the availability of sources of information and the confidentiality required by them:

## Statistical Unit

- **ToR OCDE:** by firm.
- **ESUT Mexico:** by establishment.

## 'Ideal' breakdown

- **ToR OCDE:** by **rows** (products) and **columns**. (industries)
- **ESUT Mexico:** by **columns** (industry).

## Focuses of ESUT

- **ToR OCDE:** export focus, ownership focus and size classes focus.
- **ESUT Mexico:** export focus, ownership focus and size classes focus and **integrated** focus.

# CATEGORIES BY EXTENSION



## Export Focus

### ToR OCDE:

- Exporter
- Non Exporter

### ESUT Mexico:

- Exporter
- Non Exporter
- Non Exporter **Formal**
- Non Exporter **Informal**

## Ownership Focus

### ToR OCDE:

- Foreign Owned
- Domestically owned MNE
- Domestic Owned

### ESUT Mexico:

- Domestic Owned
- **Affiliate** Domestic Owned
- Foreign Owned
- **Affiliate** Foreign Owned

## Hybrid/ Integrated Focus

### ToR OCDE:

- Foreign Owned
- Domestically owned MNE
- Domestic Owned (Small)
- Domestic Owned (Medium)
- Domestic Owned (Large)

### ESUT Mexico:

- Export Focus
  - Domestic Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Affiliate Domestic Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Foreign Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Affiliate Foreign Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
- Non Export Focus
  - **Formal**
  - **Informal**

# CATEGORIES BY EXTENSION



## Export Focus

### ToR OCDE:

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- Foreign Owned
- **Affiliate** Foreign Owned

## Hybrid/ Integrated Focus

### ToR OCDE:

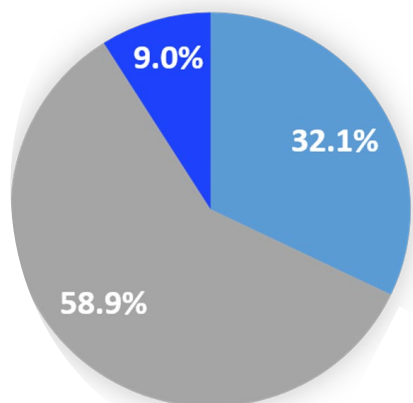
- Foreign Owned
- Domestically owned MNE
- Domestic Owned (Small)
- Domestic Owned (Medium)
- Domestic Owned (Large)

### ESUT Mexico:

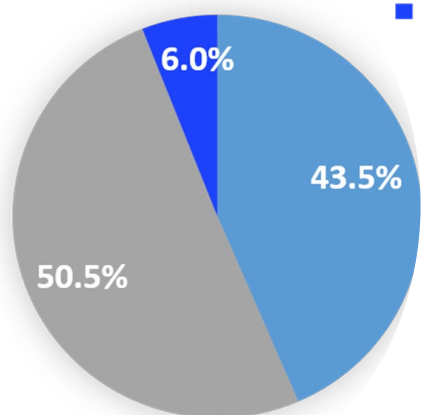
- Export Focus
  - Domestic Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Affiliate Domestic Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Foreign Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
  - Affiliate Foreign Owned
    - ✓ Small
    - ✓ Medium
    - ✓ Large
- Non Export Focus
  - **Formal**
  - **Informal**

## Exporter Focus

Supply



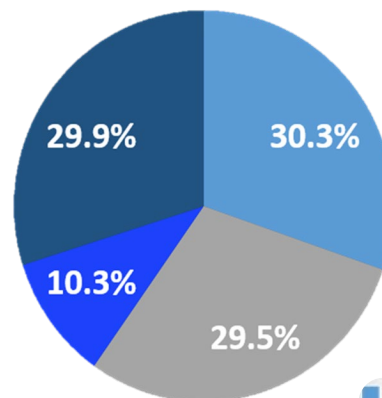
Use



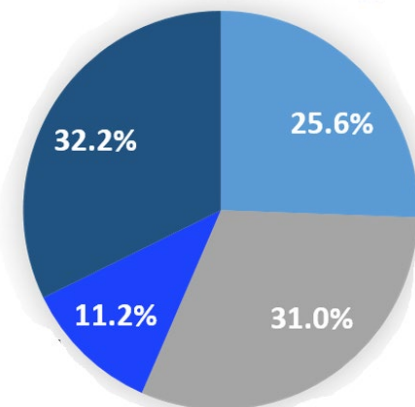
- Exporter
- Non Exporter Formal
- Non Exporter Informal

## Ownership Focus

Supply\*



Use\*

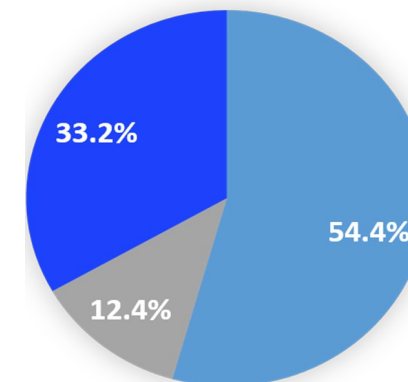


- Domestic Owned
- Affiliate Domestic Owned
- Foreign Owned
- Affiliate Foreign Owned

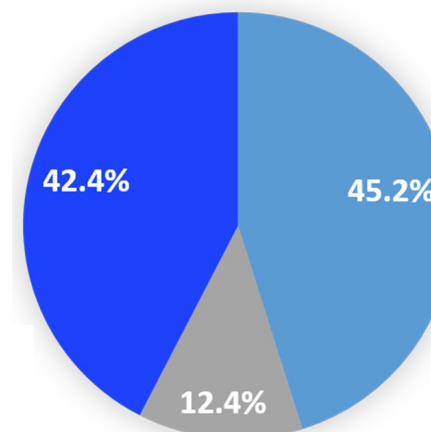
\*Economic Units are classified as exporters.

## Size class

Supply



Use



- Small
- Medium
- Large

# EXTENDED SUPPLY AND USE TABLES (ADVANCES)





# DOMESTIC AND IMPORTED INTERMEDIATE CONSUMPTION EXPORT FOCUS



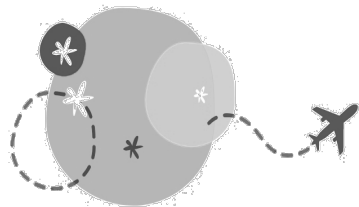
The **goal** of this disaggregation is to show the **origin** of the **goods and services** used to **carry out** the **production** of the **establishments** identified as **Exporters (EF)**.

The origin of intermediate goods and services will be presented in two aggregates:

Domestic



Imported



Intermediate inputs

# SUMMARY OF RESULTS



## Export Focus

The Economic Unit (EU) of the Export Focus consumed **19% of domestic inputs** and **24.5% of imported inputs** to carry out the production for exports and for the domestic market.



## Non Export Focus

To carry out the production of the EU with a Non-Export Focus, **12.9% of imported inputs** and **43.6% domestic inputs** were used.



# VALUE ADDED COMPONENTS EXPORTERS



The ESUT 2013 publication, specifically in the Use Table, covers all characteristics and components of traditional Use Table except for value added components that were not extended.

For this reason, the importance of complement and strengthen the publication to offer detailed information to users. To be completed and published at the end of the year.

Use Table. Export Focus	Sector		
	Export er	Non Formal Exporter	Non Informal Exporter
VALUE ADDED AT BASIC PRICES	-	-	-
Total compensation of employees	-	-	-
Wages and salaries including effective social security contributions	-	-	-
Salaries	-	-	-
Wages	-	-	-
Effective social security contributions	-	-	-
Other social benefits	-	-	-
Taxes net of subsidies on production	-	-	-
Taxes levied on its activity	-	-	-
Less: subsidies	-	-	-
Gross Operating Surplus	-	-	-
TOTAL PRODUCTION AT BASIC PRICES	-	-	-

# TIVA INDICATORS TO NORTH AMERICA REGION



# SUPPLY AND USE TABLES

## NATIONAL



Based on the National **Supply and Use Tables (SUT)** prepared by each partner country in the region, **the regional SUTs** are constructed.

### Compilation

- The available information about SUT, IOT and external trade are compiled by country.
- Valuations and structures are analyzed and adjusted.
- The number of industries and products are harmonized.
- A conversion to US dollars is made according to the IMF exchange rate.



# SUPPLY AND USE TABLES

## REGIONAL



### Regional SUT

According to methodology, there are two models **Endogenous** and **exogenous**, they are used to construction of **Regional** Supply and Use Tables that support regional matrices and TiVA indicators.

In our case used exogenous model.

Finally, they are balanced, and it is ensured that they coincide with the relevant accounting restrictions to obtain symmetric SUT's.

1

Adapt and adjust the information for each country in a symmetric matrix  $(NK*KN)^1$ .

2

Determine the **taxes** by difference through the values at **purchaser prices vs basic prices** of the Use Table.

3

The dimensions of **final demand** by product are adjusted, **maintaining their categories**.

4

The dimensions of **value added by industry** are adjusted.

# INPUT-OUTPUT TABLES REGIONAL



For the transformation from regional SUT to Regional IOT, it was used the “**Model D**” of Eurostat's "Manual of Supply, Use and Input-Output Tables" as a reference, and it was adopted the suppose which assumes that **each product has its own specific sales structure, irrespective of the industry where it is produced.** .

## FIXED PRODUCT SALES STRUCTURE ASSUMPTION (MODEL D) INDUSTRY BY INDUSTRY

Acronym	Description	Table
T	Transformation Table	$T = \text{inv}[\text{diag}(q)] * V$
A	Intermediate input coefficients	$A = T * U * \text{inv}[(\text{diag}(g))]$
R	Coefficients of Value-Added inputs	$R = W * \text{inv}[\text{diag}(g)]$
q	Production	$q = \text{inv}[I - T * U * \text{inv}(\text{diag}(g))]$ $* T * y$
B	Intermediate Demand	$B = T * B$
W	Value added	$W = W$
F	Final Demand	$F = T * Y$

*Source: Manual of Supply, Use and Input-Output Tables, Eurostat*

# For elaboration of TiVA indicators

It is required

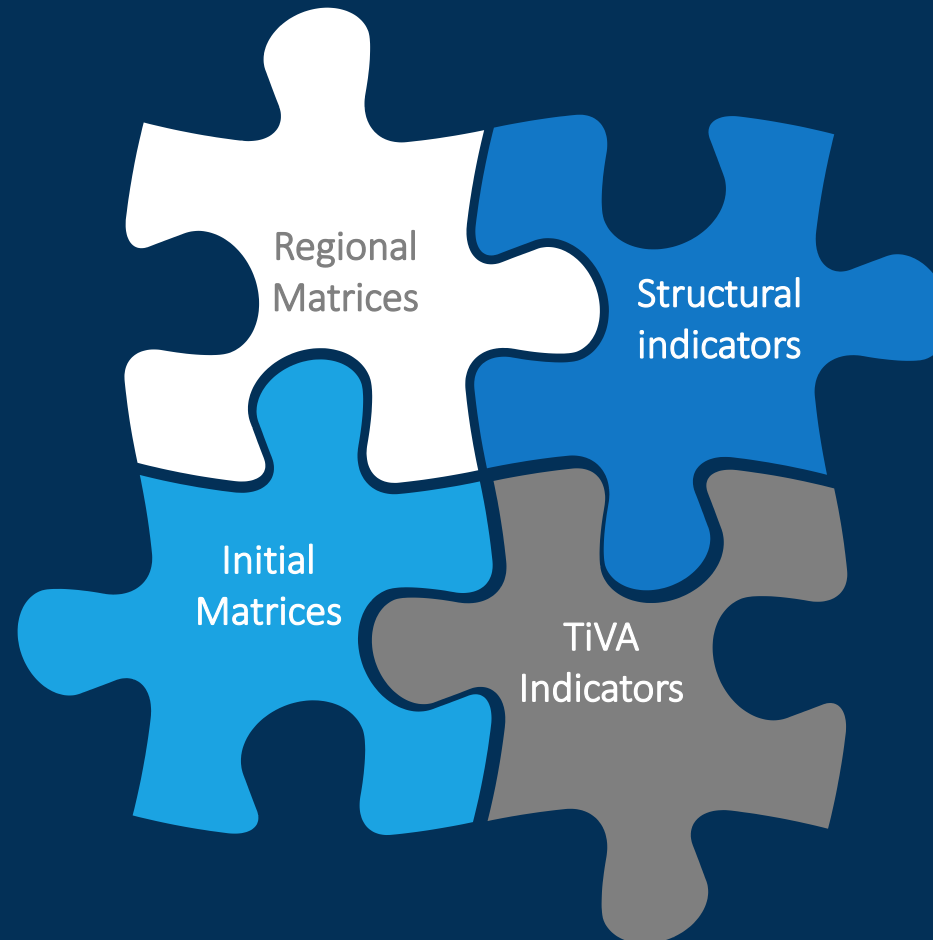


## 01

Construction of the  
Regional Matrix

## 02

Construction of the  
initial Matrices



## 03

Construction of the  
structural indicators

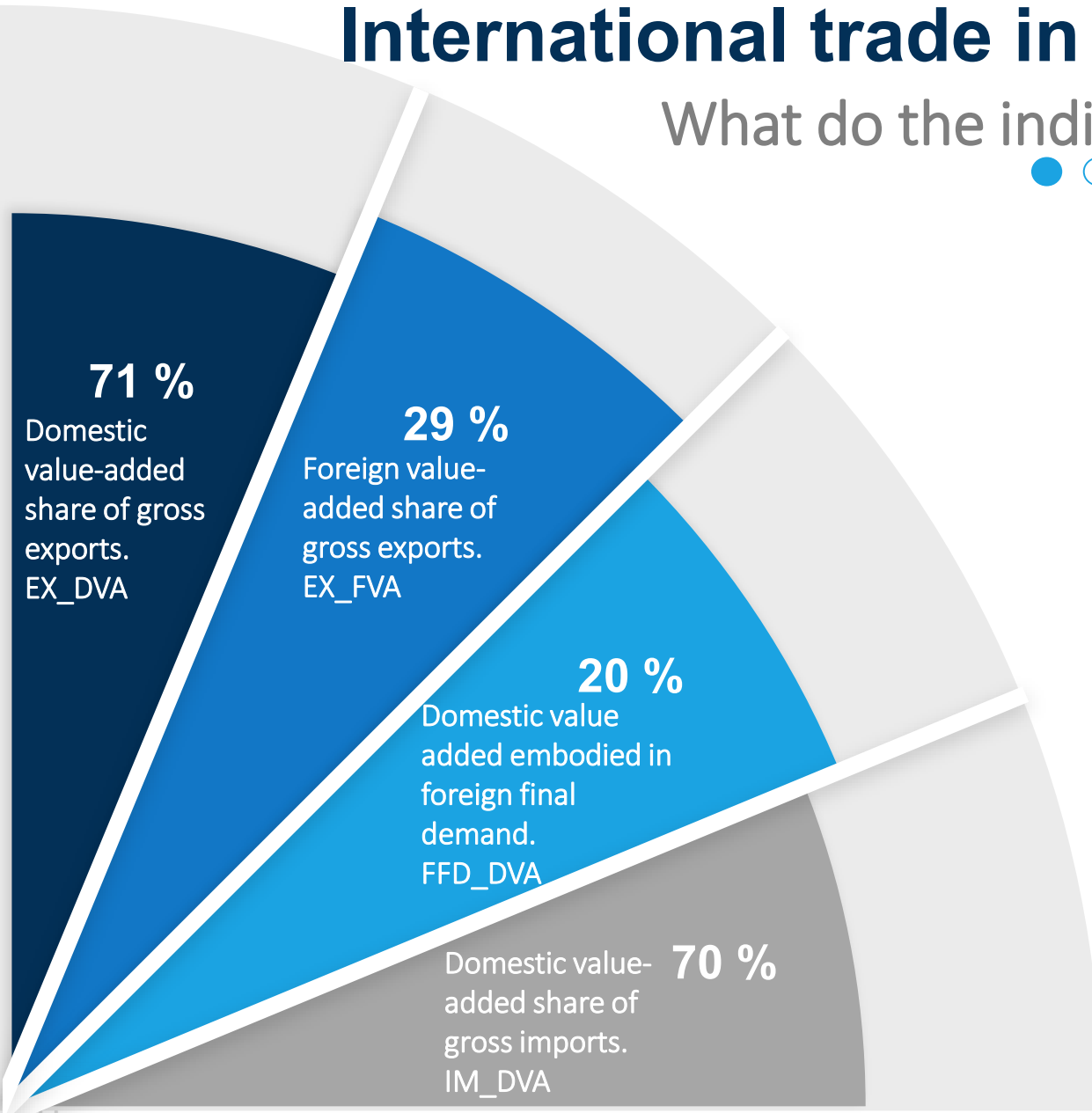
## 04

Calculation of the TiVA indicators  
that they measure the  
international trade in terms of  
value added



# International trade in value added indicators

What do the indicators measure?



1

**EX\_DVA**

It measures the total domestic value added generated in the local economy c contained in exports to the partner country p.

2

**EX\_FVA**

Measures the content of foreign value added in gross exports of intermediate goods and services incorporated in the total gross exports of the local country c.

3

**DFE\_VAD**

It measures the domestic value added contained in the final goods and services that local industries export to partner countries.

4

**IM\_DVA**

It is the domestic value added generated in the local country that returns to the local country c contained in the gross imports of the industry i of the partner country.

# SUMMARY OF RESULTS



Publishing at the end of 2022:

**29 TiVA indicators for North America** with information from the ICIO for **2012** at the **experimental** area.

A time series **from 2012 to 2018** of the same **TiVA indicators for North America** with information from the **SNAM**, data from the **ICIO-OECD**, and **treatment of asymmetries of foreign trade**.

# Experimental Statistics

## International trade in value added indicators



Indicator (Percentage terms)	Canada	Mexico	USA	Rest of the world
Domestic value-added share of gross exports. DVA	76.8	71.0	86.7	97.6
Direct domestic industry value added content of gross exports.	49.6	51.0	55.4	48.3
Foreign value-added share of gross exports.	20.6	29.0	23.2	22.9
Domestic services value-added share of gross exports, by country.	36.1	28.0	44.4	25.2
Domestic value-added share of gross imports.	75.6	77.2	86.1	97.7
Domestic value added embodied in foreign final demand.	20.7	20.8	10.0	2.7
Distance to final demand*	1.6	1.5	1.8	2.2



# THANK YOU



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